

Agency Use	
Permit No.:	
Date Rec'd りろりん	
Rec'd By	

FORM NIMP

Nutrient Management Plan

READ THIS BEFORE COMPLETING FORM: Before completing this form (Form NMP), Concentrated Animal Feeding Operation (CAFO) operators need to read the General Permit, particularly Part IV.A. CAFO operators also need to read the "Instructions For Filling Out Form NMP," found at the back of the Form. Form NMP is intended to help CAFO operators develop a site-specific Nutrient Management Plan, in compliance with Part IV.A of the General Permit and all applicable State rules and statutes. Your Nutrient Management Plan must be maintained at the site as required in Part III of the General Permit. Sections B and C on your Form NMP must state the information exactly the same way as it was stated on the most recently submitted version of your Form 2B. Attach additional pages as necessary, indicating the corresponding section number on this NMP form. For additional help in filling out this form please read the attached instructions. The 2008 General Permit, current fee schedule, and related forms are available from the Water Protection Bureau at (406) 444-3080 or http://www.deq.mt.gov/wqinfo/MPDES/CAFO.asp

Section A - NMP Sta	atus (Check one):		•	
X New	No prior NMP submitted for this site.			
☐ Modification	Change or update to existing NMP.			
Permit Number: MT	110232 (Specify the permit number the	nat was previ	ously assigned	to your facility.)
Section B - Facility	or Site Information			
Site Name Mille?	COLONY ENC		-	
Site Location5	130 US HWY 89			
Nearest City or Town	Bynum	County	teron	*
Section C - Applican	nt (Owner/Operator) Information:			
Owner or Operator Na	me Milley Colony			
Mailing Address 3	130 US HWY 8	9		
City, State, and Zip Co	ode choteau MT 59	422		
Phone Number	406-466-2339			



Waste Control Structure (name/type)		alandaria anni di		
muste Connormation Concentrate	Length (ft)	Width (ft)	Depth (ft)	Volume (cubic ft or gallons)
1. Storage Tank				1,200,000
<u></u>	·			5,500,000
2. Lagoon 3. Evelorating fond		,		NA
4.				
5.			·	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
12.				
1. Disposal of Dead Animals Describe how dead animals are dispose Dead animals			' a	least 2 feet
			' @ _	least 2 feet
Describe how dead animals are dispose Dead animals			' a .	least 2 feet
Describe how dead animals are dispose Dead animals			' Q _	least 2 feet
Describe how dead animals are disposed Describe how dead animals are disposed Describe how dead animals are disposed Alee f. Clean Water Diversion Practices	are	buried	' @ _	least 2 feet
Describe how dead animals are disposed Describe how dead animals are disposed Describe how dead animals are disposed Alee f. Clean Water Diversion Practices	are	buried	' a -	least 2 feet
Describe how dead animals are disposed Descri	are	buried	' a -	least 2 feet
Describe how dead animals are disposed Describe how clean water is diverted from the disposed animals are disposed Describe how clean water is diverted from the disposed animals are disposed Describe how clean water is diverted from the disposed animals are dispose	are	buried	' a -	least 2 feet
Describe how dead animals are disposed Dead animals Leef. 5. Clean Water Diversion Practices Describe how clean water is diverted from the second	are	buried	' a -	least 2 feet
Describe how dead animals are disposed Dead animals Leef. 5. Clean Water Diversion Practices Describe how clean water is diverted from the second	are	buried	' a -	least 2 feet
Describe how dead animals are disposed Dead animals Leef. 5. Clean Water Diversion Practices Describe how clean water is diverted from the second	are	buried	<u>'</u> @ _	least 2 feet

Describe in detail all temporary, permanent used to control runoff of pollutants from factorices. If not already in use, include a so details and specifications may be used to su include but are not limited to: maintaining sirrigation practices to prevent ponding of w frozen ground; consulting with the Departing ground; applying wastes at agronomic rates Plant sampling/tissue analysis	cility's land applice chedule for implemoupplement this descreteacks from surfactor astewater on land an anent prior to applying	ation area. Indicate the location of the entation of each of these measures. At ription. Examples of BMP measures of examples of examples of examples of example applications; may pplication sites; never spray irrigating	ese ctached could naging wastes onto
Conservation or reduced tillage	vestno	Manure injection or incorporation	(yes)no
Terraces or other water control structures	yes/no)	Contour plantings	yes/no
Riparian buffers or vegetative filter strips	(yes)no	Winter "scavenger" or cover crops	(yes/no
Other examples		. .	
9. Implementation, Operation, Maintena The permittee is required to develop guidar maintenance of the facility, and record kee	nce addressing imp	lementation of NMP, proper operation	and
Has a guidance document been developed Certify the document addresses the following Implementation of the NMP: Facility operation and maintenance: Yes Record keeping and reporting: Sample collection and analysis: Yes Manure transfer:	ing requirements: es		
If your answer to any of the above question of T/Y De Velo ling	n is no, provide exp		

Phosphorus Risk Assessment

The permittee shall assess the risk of phosphorus contamination of state waters. An assessment shall be conducted for each field, under the control of the operator, to which manure, litter or process wastewater will or may be applied. If a new field is added in the future, then the permittee must submit a revised (modified) NMP. The permittee has the option of using either Method A or Method B (below) to complete the assessment. Copies of all tables and calculations used to complete the assessments, as well as the results of the assessments, shall be submitted to the Department and copies shall be maintained on-site at the facility and available for Departmental review. The results of the assessments shall be used to determine the appropriate basis for land application of wastes from the facility.

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IVI	ern	OU.	US	eu

Ind	icate which method will be used to determine phosphorus application	n:
	Method A – Representative Soil Sample	
	Method B – Phosphorus Index	

Method A – Representative Soil Sample

- a) Obtain one or more representative soil sample(s) from the field.
- b) Have the sample analyzed for Phosphorus by a qualified lab. The "Olsen P test" must be used for the analysis, and the result must be reported in parts per million (ppm).
- c) Using the results of the Olsen P test, determine the application basis according to the Table below

Soil Test	
Olsen P Soil Test Result (ppm)	Application Basis
<25.0	Nitrogen Needs Of Crop
25.1 - 100.0	Phosphorus Needs Of Crop
100.0 - 150.0	Phosphorus Needs up to Crop Removal Rate
>150.0	No Application

Method B – Phosphorus Index

- a) Complete a Phosphorus Index according to for each crop grown on each field. Complete table in Appendix A to calculate phosphorus index. For information on filling out specific sections Appendix A, please refer to Attachment 2 of Department Circular DEQ 9.
- b) Using the calculated Total Phosphorus Index Value, assign the overall site/field vulnerability to phosphorus loss according to the table below.

Total Phosphorus		
Total Phosphorus Index Value	Site Vulnerability to Phosphorus Loss	
<11	Low	
11-21	Medium	
22-43	High	
>43	Very High	

c) Using the calculated Site Vulnerability to Phosphorus Loss, determine the appropriate application basis according to the table below.

Site Vulnerability to Phosphorus Loss	
Site Vulnerability to Phosphorus Loss	Application Basis
Low	Nitrogen Needs
Medium	Nitrogen Needs
High	Phosphorus Need Up to Crop Removal
Very High	Phosphorus Crop Removal or No Application

INSTRUCTIONS FOR

Form NMP - Nutrient Management Plan Associated With Concentrated Animal Feeding Operations

You may need the following items in order to complete this form: A copy of your most recently submitted Form 2B; a copy of Department Circular DEQ 9, "Montana Technical Standards for Concentrated Animal Feeding Operations;" a copy of soil and manure sample analyses; and a calculator.

Please type or print legibly; forms that are not legible or are not complete will be returned.

SPECIFIC ITEM INSTRUCTIONS

Section A – NMP Status:

Check the box that applies and provide the requested information. If Form NMP has not been previously submitted for this site, check the first box (New). If you submitted a Form NMP and the Department returned it to you as deficient or incomplete, check the second box (Resubmitted); if you were notified by the Department that the permit coverage expired and you are now submitting an updated Form NMP, check the third box (Renewal); if there is a change in the facility or site information (Section H), check the last box (Modification). If a Form NMP has been submitted and returned as incomplete, then the permit number appears in the upper right hand corner of the form. If the site is covered under the *General Permit for Concentrated Animal Feeding Operations*, the number is given on the Authorization letter sent to you by the Department. The permit number must be included on any correspondence with the Department regarding this site.

Section B – Facility or Site Information:

The information must be stated exactly the same way as it was stated on the most recently submitted version of your Form 2B.

Section C - Applicant (Owner/Operator) Information:

The information must be stated exactly the same way as it was stated on the most recently submitted version of your Form 2B.

Section D - Waste Management Minimum Elements:

Livestock Statistics: Identify each type of animal confined at your facility. The definition of "type" could include animals of a given species, animals of a given weight class (e.g. piglets, sows), or animals housed for a specific purpose (e.g. dry cows, milking cows).

"Number of days on site per year" means the number of days at least one animal of a given type is held in confinement during any 12-month period.

"Annual manure production" means the volume of manure (from a given animal type) that is stored, land applied, or transferred to other persons during any given 12-month period. When describing the method used to calculate annual manure production, include all formulas, factors, references to tables, and other resources used to calculate manure production. Be sure to account for soiled bedding materials and manure-contaminated runoff water, also considered manure under state regulations.

Manure Removal from Confinement Area, list each confinement area at your facility. For example, pens, freestall barns, hog barns, poultry barns, yard back, calving pens, etc.

Nutrient Management and Waste Utilization via Land Application:

The purpose for having two options is to allow you to make use of the valuable technical assistance provided by the USDA's Natural Resources Conservation Service (NRCS), if you should so desire.

Requirements: Land application equipment calibration is essential to ensuring that nutrients are being applied at agronomic rates. Section 5 of Department Circular DEQ 9 contains sample instructions on how to calibrate some types of land application equipment. The instructions in Section 5 of Department Circular DEQ 9 are purely recommendations, other methods may work just as well. When sending manure or soil samples to a laboratory for analysis, it is your responsibility to make sure that the lab uses the correct sampling procedures. You should never just "assume" that they will. It is also your responsibility to make sure that the results of the analysis are reported using the appropriate units of measurement. Before you take any samples, talk to the lab that you intend to use. Ask them if they have specific instructions on how to obtain and submit samples. If they do, then you must follow their instructions in order to help ensure that the analysis results you get are as accurate as possible.

You will most likely need to make and fill out multiple photocopies of "Table 4 – Crops and Manure" For information on how to fill out specific sections of Table 6 – Phosphorus Index, please refer to Attachment 2 of Department Circular DEQ 9.

"Table 9 – Nutrient Budget Worksheet" must be filled out for each crop grown on each field to which manure or process wastewater will or may be applied, regardless of whether Method A has been used or Method B has been used. When filling out Table 9, be sure and refer to nitrogen in terms of pounds of elemental nitrogen. Phosphorus should be referred to in pounds of P_2O_5 .

Section F – Certification:

If Form NMP is filled out by one person and signed by another, the person signing the document should read it thoroughly. Always retain a copy of each of the documents that you send to the Department.

If you have any questions concerning how to fill out this form, or other forms related to the Montana Pollutant Discharge Elimination System (MPDES) discharge permitting program, please contact the Department's Water Protection Bureau at:

Phone: (406) 444-3080 Fax: (406) 444-1374 1520 East Sixth Avenue P.O. Box 200901 Helena, MT 59620-0901 d) The permittee will complete the *Nutrient Budget Worksheet*, below, for each crop grown on each field to which manure or process waste water is or may be applied during the first year of application. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Site/Fiel			
	Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application
100000	Crop Nutrient Needs, lbs/acre included in Department Circular DEQ 9		
(-)	Credits from previous legume crops, lbs/acre (from DEQ-9), as applicable		
(-)	Residuals from past manure production, lbs/acre (lbs/acre applied in previous year(s) x fractions listed in DEQ-9)		
(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre		
(-)	Nutrients supplied in irrigation water, lbs/acre		
	= Additional Nutrients Needed, lbs/acre		
	Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1,000 gal (from manure test)		
(x)	Nutrient Avalability factor (for Nitrogen based application see DEQ-9, below; for Phosphorus based application use 1.0)		
	= Available Nutrients in Manure, lbs/ton or lbs/1,000 gal		
	Additional Nutrients needed, lbs/acre	Marin Anna Carlotte	
	(calculated above)		
(/)	Available Nutrients in Manure, lbs/ton or lbs/1,000 gal (calculated above)		
-	= Manure Application Rate, tons/acre or 1,000 gal/acre		
Commen			

The following must be filled out <u>for each field</u> to which manure, litter or process wastewater will or may be applied for the period of the permit (5 years). Use as many sheets as necessary to fulfill this requirement. <u>Fields</u> with identical crops and soil types may be grouped together.

Crops and Manure	
Field Name and spreadable acres for each (for fields wit	h identical crops and soils type):
Crop 1 (year 1 or ?) plant species	Pasture
Irrigated (Y/N)	
Yield Goal (ton/ac or bushel/ac)	27/AC
N Content of soil as nitrate (lbs/acre or ppm)	
P Content of soil as P ₂ O ₅ (lbs/acre or ppm)	
Time of Year When Application will Occur (month)	Sarino
Application frequency (per year by month)	1X
Form of manure (liquid/solid)	Solid
Method of Application	Broadcast
Is manure incorporated or broadcast?	11
Frequency of Application (yearly, biannual, etc.?)	every 4-5 yrs
Crop 2	
Irrigated (Y/N)	
Yield Goal (ton/ac or bushel/ac)	
N Content of soil as Nitrate (lbs/acre or ppm)	
P Content of soil as P ₂ O ₅ (lbs/acre or ppm)	
Time of Year When Application will Occur (month)	
Application frequency (per year, by month)	
Form of manure (liquid/solid)	
Method of Application	
Is manure broadcast, injected or incorporated?	
Frequency of Application (Annual, Biannual, ,etc?)	

Land Application Data-Narrative approach

The following must be filled out <u>for each field</u> to which manure, litter or process wastewater will or may be applied for the period of the permit (5 years). Use as many sheets as necessary to fulfill this requirement. <u>Fields</u>

1 1		1		
with ider	ntical crops and so	oil types may be	grouped together	
AAICH ICCI	itical crops and so	on types may be	grouped together	• ——————
Crops a	and Manure			

Canola (yr)
50 by 1000#
49
32
Spring
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Sprinkle then Incorporated
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Lentils (4)
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April
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slurry
Sprinkle
sprinkle the brondcast
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Land Application Data-Narrative approach

The following must be filled out <u>for each field</u> to which manure, litter or process wastewater will or may be applied for the period of the permit (5 years). Use as many sheets as necessary to fulfill this requirement. <u>Fields</u> with identical crops and soil types may be grouped together.

Crops and Manure

Field Name and spreadable acres for each (for fields with identical crops and soils type):

Crop 1 (year 1 or ?) plant species	Winter Wheat you
Irrigated (Y/N) Both	y O _N
Yield Goal (ton/ac or bushel/ac)	120 40
N Content of soil as nitrate (lbs/acre or ppm)	49 50
P Content of soil as P ₂ O ₅ (lbs/acre or ppm)	32 20
Time of Year When Application will Occur (month)	Spring June/ luly
Application frequency (per year by month)	1 X/Ur Query 4-54R
Form of manure (liquid/solid)	Slavey Slavey
Method of Application	Sprinkle 200 in Kle
Is manure incorporated or broadcast?	Sprinkled then worked in
Frequency of Application (yearly, biannual, etc.?)	yearly every 4-541:
Crop 2	Barley (yrz)
Irrigated (7/N)	6
Yield Goal (ton/ac or bushel/ac)	100 bu
N Content of soil as Nitrate (lbs/acre or ppm)	49
P Content of soil as P ₂ O ₅ (lbs/acre or ppm)	.3 2
Time of Year When Application will Occur (month)	Security
Application frequency (per year, by month)	Ixur
Form of manure (liquid/solid)	Slucey
Method of Application	Sprakle
Is manure broadcast, injected or incorporated?	Sprinkle then incorporated
Frequency of Application (Annual, Biannual, ,etc?)	15 Annual
	3

d) The permittee will complete the *Nutrient Budget Worksheet*, below, for each crop grown on each field to which manure or process waste water is or may be applied during the first year of application. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Nutrient B	ıdget Worksheet		
Site/Field:	Winder Wheat	chicken	MAUNIC
	Nutrient Budget	Nitrogen-based	Phosphorus-based
		Application	Application
- /	Crop Nutrient Needs, lbs/acre included in		
40	Department Circular DEQ 9	104	35
(-)	Credits from previous legume crops,		
	lbs/acre (from DEQ-9), as applicable		
(-)	Residuals from past manure production,		
	lbs/acre (lbs/acre applied in previous		
	year(s) x fractions listed in DEQ-9)		
(-)	Nutrients supplied by commercial		
	fertilizer and Biosolids, lbs/acre		
(-)	Nutrients supplied in irrigation water,		
	lbs/acre		
	= Additional Nutrients Needed, lbs/acre	104	35
	Total Nitrogen and Phosphorus in manure,	17.8	13.6
	lbs/ton or lbs/1,000 gal (from manure test)	1 / 1 8	13.6
(x)	Nutrient Avalability factor (for Nitrogen		
	based application see DEQ-9, below; for	,	1.0
	Phosphorus based application use 1.0)	6.5	
	= Available Nutrients in Manure,	2 8.9	13.6
	lbs/ton or lbs/1,000 gal	Z_ 0 * /	
	Additional Nutrients needed, lbs/acre		
	(calculated above)	104	2
(/)	Available Nutrients in Manure, lbs/ton or	704	3.5
()	lbs/1,000 gal (calculated above)	£ 8.9	15 (
	= Manure Application Rate, tons/acre	65 O., 7	/ 3. 6
	or 1,000 gal/acre	15-2 //.6	2.57
Comments:	TO A A TOUR BOOK OF THE PROPERTY OF THE PROPER	1,000	
	6		
Ph	rosphorus 542 ADPlic	cation = 13.00	10 gs//yr
	0 1.		

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d) The permittee will complete the *Nutrient Budget Worksheet*, below, for each crop grown on each field to which manure or process waste water is or may be applied during the first year of application. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Nutrient Bu	idget Worksheet		
Site/Field:	Winter WHEAT	Slurry	
	Nutrient Budget	Nitrogen-based	Phosphorus-based
		Application	Application
40 bu	Crop Nutrient Needs, lbs/acre included in	160	55
		104	35
(-)	Credits from previous legume crops,		
<u> </u>	lbs/acre (from DEQ-9), as applicable		
(-)	Residuals from past manure production, lbs/acre (lbs/acre applied in previous		
4.4	year(s) x fractions listed in DEQ-9)		
(-)	Nutrients supplied by commercial		
	fertilizer and Biosolids, lbs/acre		
(-)	Nutrients supplied in irrigation water,		
,	lbs/acre		
	= Additional Nutrients Needed, lbs/acre	104	35
	All designs and the second		
	Total Nitrogen and Phosphorus in manure,		1 7
	lbs/ton or lbs/1,000 gal (from manure test)	/3.6	1.2
(x)	Nutrient Avalability factor (for Nitrogen		
	based application see DEQ-9, below; for	5 6	1.0
	Phosphorus based application use 1.0)	0.5	1 0
	= Available Nutrients in Manure,	6.8	1.2
	lbs/ton or lbs/1,000 gal	6 5 0	1.0
	Additional Nutrients needed, lbs/acre		
	(calculated above)	104	35
(/)	Available Nutrients in Manure, lbs/ton or		
	lbs/1,000 gal (calculated above)	6.8	1.2
	= Manure Application Rate, tons/acre		
	or 1,000 gal/acre	<u> </u>	29
Comments:			
**************************************			·
·			

d) The permittee will complete the Nutrient Budget Worksheet, below, for each crop grown on each field to

d)	The permittee will complete the Nutrient Budget Work which manure or process waste water is or may be appeach Nutrient Budget Worksheet will be maintained of Department.		
Nutr	ient Budget Worksheet	SHEEP BEEK	SOLID
	Field: SHEEP PASTURE	SPICE IDEE	Republicants aux charge
	ग्रिमानाश्चर्य छित्रणेष्ट्रधः		
	Crop Nutrient Needs, lbs/acre included in		20
	Department Circular DEQ 9	40	
()	Credits from previous legume crops,		
(-)	lbs/acre (from DEQ-9), as applicable		
(-)	Residuals from past manure production,	and the state of t	
	lbs/acre (lbs/acre applied in previous	Res.	124
	year(s) x fractions listed in DEQ-9)		
(-)	Nutrients supplied by commercial	Monotonia sugges	
	fertilizer and Biosolids, lbs/acre		
(-)	Nutrients supplied in irrigation water,	on the state to management.	
	1bs/acre	40	20
TABLESON E	= Additional Nutrients Needed, lbs/acre		
	Total Nitrogen and Phosphorus in manure,		4.4
	lbs/ton or lbs/1,000 gal (from manure test)	1206	24
45	Nutrient Avalability factor (for Nitrogen		
(x)	based application see DEQ-9, below; for		1 0
	Phosphorus based application use 1.0)		1, 0
	= Available Nutrients in Manure,		24
	lbs/ton or lbs/1,000 gal		
	Additional Nutrients needed, lbs/acre		20
·	(calculated above)		
(/)	Available Nutrients in Manure, lbs/ton or		•
	lbs/1,000 gal (calculated above) = Manure Application Rate, tons/acre		
	or 1,000 gal/acre		<u> </u>
Ca	77. VA 0.44 T 0.4	` `	
C0	5 yr Application RAte = area spread is restricted site is only Applied	E + / 1= 0	
·	5 yr Application RATE =	S 1/ ACRE	
200000	Down sorend 15 Rotates	1 ACROSS Held	and each
-	Clara Spila	IV out of	5 yrs
_	site is only Applied		- 0
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d) The permittee will complete the *Nutrient Budget Worksheet*, below, for each crop grown on each field to which manure or process waste water is or may be applied during the first year of application. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Nutrient Bu	idget Worksheet		
Site/Field:	CANOLA- EAST	Pivot	FISH
	Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application
(-)	Crop Nutrient Needs, lbs/acre included in Department Circular DEQ 9	65	58.5
(-)	Credits from previous legume crops, lbs/acre (from DEQ-9), as applicable		
(-)	Residuals from past manure production, lbs/acre (lbs/acre applied in previous year(s) x fractions listed in DEQ-9)		
(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre	·	
(-)	Nutrients supplied in irrigation water, lbs/acre		·
	= Additional Nutrients Needed, lbs/acre	65	58.5
	Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1,000 gal (from manure test)	0.9	0.7
(x)	Nutrient Avalability factor (for Nitrogen based application see DEQ-9, below; for Phosphorus based application use 1.0)	,75	1,0
	= Available Nutrients in Manure,		
	lbs/ton or lbs/1,000 gal	0.68	¥ 0.1
	A 1111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997	
	Additional Nutrients needed, lbs/acre (calculated above)	65	58.5
(/)	Available Nutrients in Manure, lbs/ton or lbs/1,000 gal (calculated above)		
	= Manure Application Rate, tons/acre or 1,000 gal/acre	95	83.5
Comments:	1461 25,000 GAI	- Supplais	17 [#] N
	17:5# Phosphorus		
-			
			·

d) The permittee will complete the *Nutrient Budget Worksheet*, below, for each crop grown on each field to which manure or process waste water is or may be applied during the first year of application. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Nutrient B	udget Worksheet		
Site/Field:	CORN- PIVOT	WEST	F151+
	Nutrient Budget	Nitrogen-based	Phosphorus-based
		Application	Application
24 TON	Crop Nutrient Needs, lbs/acre included in		
	Department Circular DEQ 9	243	215
(-)	Credits from previous legume crops,		
	lbs/acre (from DEQ-9), as applicable		
(-)	Residuals from past manure production,		
	lbs/acre (lbs/acre applied in previous	margane * ·	
()	year(s) x fractions listed in DEQ-9)		
(-)	Nutrients supplied by commercial	ng dayle to "	
	fertilizer and Biosolids, lbs/acre		
(-)	Nutrients supplied in irrigation water, lbs/acre	enga ka ka para ar	
	= Additional Nutrients Needed, lbs/acre	2 1/6	215
	- Additional Nutrients Needed, ibs/acre	2/3	3/5
	Total Nitrogen and Phosphorus in manure,		
	lbs/ton or lbs/1,000 gal (from manure test)	0.90	0,70
(x)	Nutrient Avalability factor (for Nitrogen		
()	based application see DEQ-9, below; for		,
	Phosphorus based application use 1.0)	0.75	/, 0
	= Available Nutrients in Manure,	1	
	lbs/ton or lbs/1,000 gal	0.68	0.7
			14
	Additional Nutrients needed, lbs/acre		·
	(calculated above)	243	215
(/)	Available Nutrients in Manure, lbs/ton or		
	lbs/1,000 gal (calculated above)	. 68	0/
	= Manure Application Rate, tons/acre		م ي شر
G	or 1,000 gal/acre	357	367
Comments:			
AVA	· lable is 25,000 GA	1 / Anno	,
		,	\$
	Supplies 17# N	17.5 # phos	Phonus
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With identical crops and soil types may be grouped together. Crops and Manure From I (year I or?) plant species Irrigated (YN) Yield Goal (ton/ac or bushel/ac) N Content of soil as nitrate (lbs/acre or ppm) P Content of soil as nitrate (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year by month) Form of manure (liquid/solid) Method of Application Is manure incorporated or broadcast? Frequency of Application (yearly, biannual, etc.?) Crop 2 Un n fev when f Irrigated (YN) Yield Goal (ton/ac or bushel/ac) N Content of soil as Nitrate (lbs/acre or ppm) P Content of soil as Nitrate (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	The following must be filled out <u>for each field</u> to which manuapplied for the period of the permit (5 years). Use as many sh	
Crop 1 (year 1 or ?) plant species Irrigated (Y)N) Yield Goal (ton/ac or bushel/ac) N Content of soil as nitrate (lbs/acre or ppm) P Content of soil as P ₂ O ₅ (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year by month) Form of manure (liquid/solid) Method of Application Is manure incorporated or broadcast? Frequency of Application (yearly, biannual, etc.?) Crop 2 Un fer wheaf Irrigated (Y)N) Yield Goal (ton/ac or bushel/ac) N Content of soil as Nitrate (lbs/acre or ppm) P Content of soil as Nitrate (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	with identical crops and soil types may be grouped togeth	
Crop I (year I or ?) plant species Irrigated (NN) Yield Goal (ton/ac or bushel/ac) N Content of soil as nitrate (ibs/acre or ppm) P Content of soil as P2O5 (ibs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year by month) Form of manure (ilquid/solid) Method of Application Is manure incorporated or broadcast? Frequency of Application (yearly, biannual, etc.?) Crop 2 Un n fer when f Irrigated (NN) Yield Goal (ton/ac or bushel/ac) N Content of soil as P2O5 (ibs/acre or ppm) P Content of soil as P2O5 (ibs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)		
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Form of manure (liquid/solid) Method of Application Is manure incorporated or broadcast? Frequency of Application (yearly, biannual, etc.?) Crop 2 Un fer wheat Irrigated (Y/N) Yield Goal (ton/ac or bushel/ac) N Content of soil as Nitrate (lbs/acre or ppm) P Content of soil as P ₂ O ₅ (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)		
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Frequency of Application (yearly, biannual, etc.?) Crop 2 Un fer when t Irrigated (Y/N) Yield Goal (ton/ac or bushel/ac) N Content of soil as Nitrate (lbs/acre or ppm) P Content of soil as P ₂ O ₅ (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	Method of Application	
Crop 2 Un fer wheat Irrigated (Y/N) Yield Goal (ton/ac or bushel/ac) N Content of soil as Nitrate (lbs/acre or ppm) P Content of soil as P ₂ O ₅ (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	Is manure incorporated or broadcast?	
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N Content of soil as Nitrate (lbs/acre or ppm) P Content of soil as P ₂ O ₅ (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	Irrigated (YN)	}
P Content of soil as P ₂ O ₅ (lbs/acre or ppm) Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	Yield Goal (ton/ac or bushel/ac)	
Time of Year When Application will Occur (month) Application frequency (per year, by month) Form of manure (liquid/solid)	N Content of soil as Nitrate (lbs/acre or ppm)	
Application frequency (per year, by month) Form of manure (liquid/solid)	P Content of soil as P ₂ O ₅ (lbs/acre or ppm)	
Form of manure (liquid/solid)	Time of Year When Application will Occur (month)	
	Application frequency (per year, by month)	A discourage
	Form of manure (liquid/solid)	
Method of Application	Method of Application	
Is manure broadcast, injected or incorporated?	Is manure broadcast, injected or incorporated?	
Frequency of Application (Annual, Biannual, ,etc?)	Frequency of Application (Annual, Biannual, ,etc?)	





Farm 5083

Tract 2150

Section-Township-Range

USDAFSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual owns directly from the producer and/or the 2005 ortho rectified imagery for Montans. The producer accepts the data 'as is' and USDA Farm Service Agency assumes no responsibility for actual or consequential damage incremed as a result of any user's

Legend

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

CLU Field Boundary

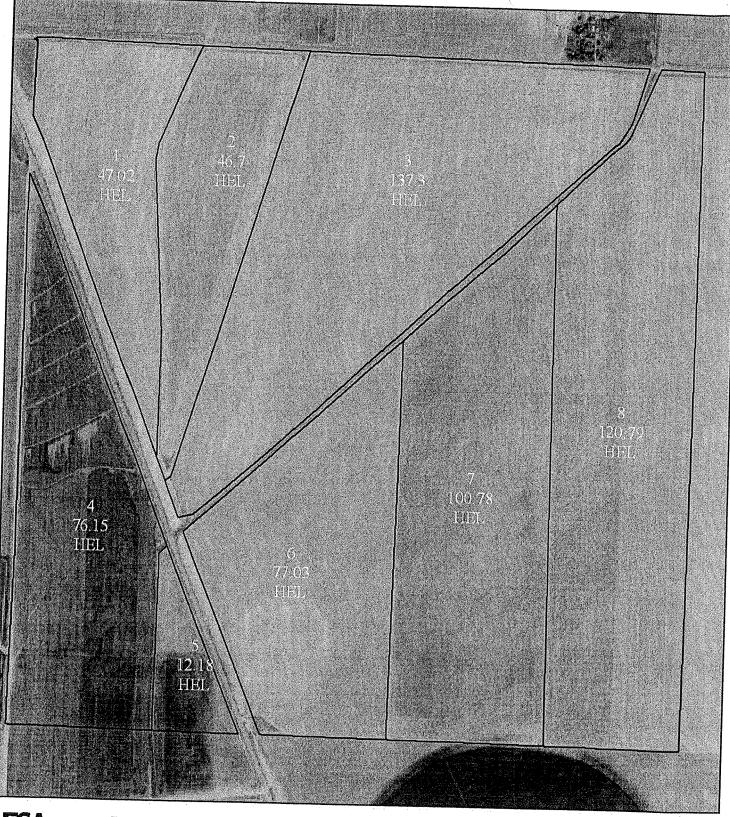


Non Ag Use

Nov 02, 2009



1:8,500 Watland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact we limb boundaries and determinations, or contact NRCS.





Farm

Tract

5083

2135

Section-Township-Range

USDAFSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership, rather it depicts the information provided directly from the producer and/or the 2005 ortho rectified imagery for Montana. The producer socepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.



Legend

Exempt from Conservation Compliance Provisions

Restricted Use Limited Restrictions

Non Ag Use

Nov 02, 2009

1:8,500 Watland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact we fland boundaries and determination, or contact NRCS.





Fann

Tract 2133

5083

Section-Township-Range

USDAFSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect sotual ownership, rather it depicts the information provided directly from the producer and/or the 2005 ortho motified imagery for Montana. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no responsibility for sotual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

7-25N-5W

CLU Field Boundary // Rangeland

Non Ag Use

Legend

Limited Restrictions Exempt from Conservation

Compliance Provisions

Restricted Use

Nov 02, 2009

1.8,500 Watland identifiers do not represent the size, shape or specific determination of the sees. Refer to your original determination (CPA-026 and attached maps) for exact well and boundaries and determinations, or contact NRCS.





Fann 5083

Tract

2231

Section-Township-Range

12-25N-6W

CLU Field Boundary

 Restricted Use Limited Restrictions

Legend

Exempt from Conservation Compliance Provisions

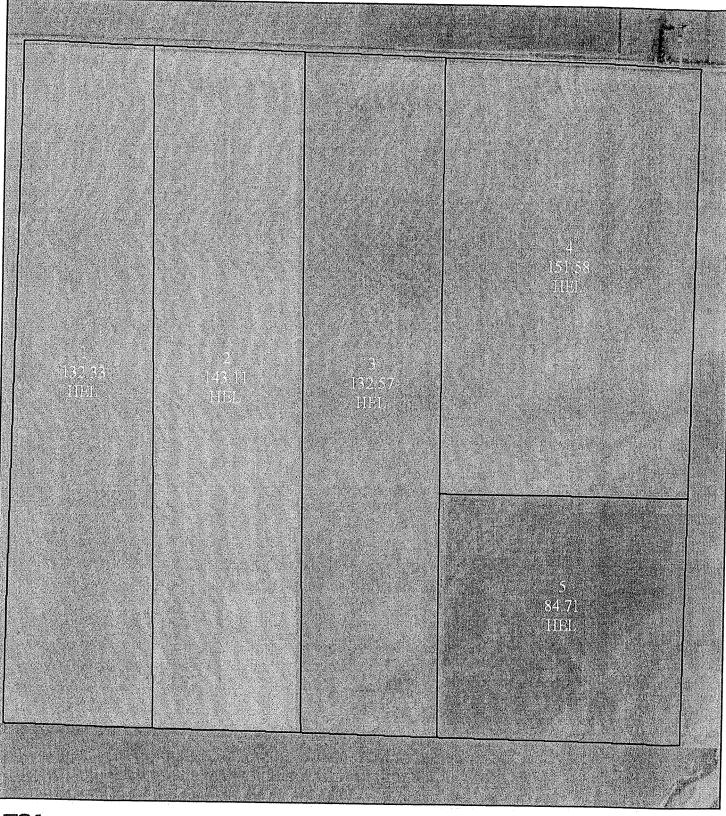
/// Rangeland

Non Ag Use

Nov 02, 2009

USDAFSA maps are for FSA Program administration only. This map does not represent a legal survey or reflect school constraintly, rather it depicts the information provided directly from the producer and/or the 2005 on the confided imagery for Montans. The producer scoops the data 'as is' and assumes all risks associated with its use. The USDAF arm Service Agency assumes no map consibility for actual or consequential damage incurred as a sesult of any user's saliance on this data outside of FSA Programs.

1:8,500 Welland identifiers do not represent the size, shape or specific determination of the size. Refer to your original determination (CPA-026 and attached maps) for exact we fland boundaries and determinations, or contact NRCS.





Fann

Tract

5083

2136

Section-Township-Range

9-25N-5W

USDAFSA maps are for FSA Program administration only. This map does not separant a legal survey or reflect actual ownership; ester it depots the information provided directly from the producer end/or the 2005 ortho motified imagery for Montana. The producer scoops the data 'as is' and assures all side associated with its use. The USDA Farm Service Agency assures no maponsibility for sotual or consequential damage inoured as a moult of any user's miliane on this data outside of FSA Programs.

CLU Field Boundary

Restricted Use

Legend

Limited Restrictions

Exempt from Conservation Compliance Provisions

// Rangeland

Non Ag Use

Nov 02, 2009





Fann

Tract 2137

5083

Section-Township-Range

10-25N-5W

CLU Field Boundary /// Rangeland

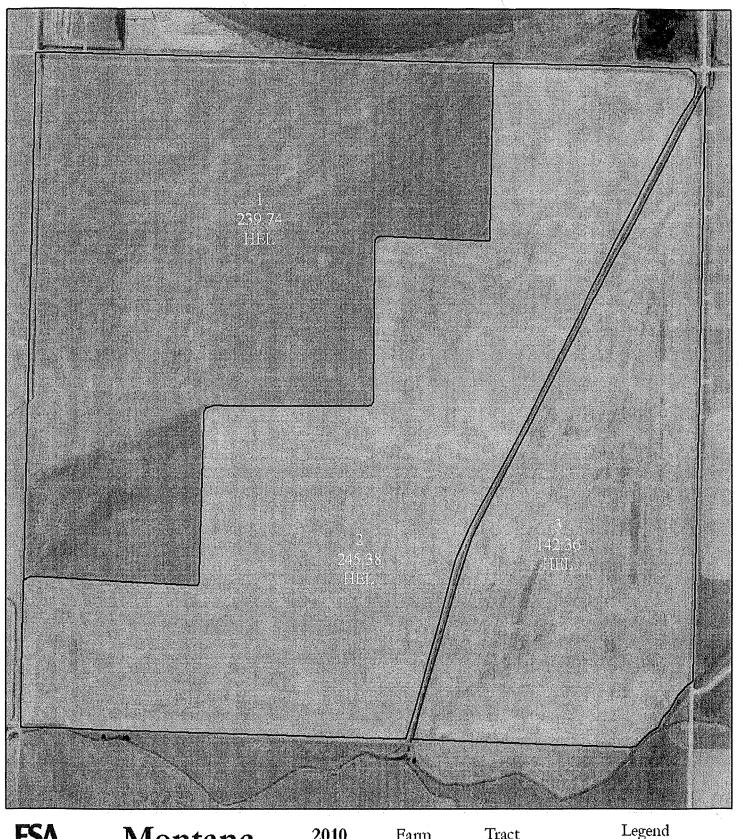
Restricted Use

Non Ag Use Nov 02, 2009

Limited Restrictions
Exempt from Conservation

Compliance Provisions

USDAFSA maps are for FSA Program administration only. This map does not sepa sent a legal survey or as fact sotual ownership; atther it depicts the information provided directly from the producer and/or the 2005 ortho motified imagery for Montana. The producer socepts the data 'as is' and assurers all risks associated with its use. The USDA Farm Service Agency assurers no responsibility for sotual or consequential damage incurred as a result of any user's relieve on this data outside of FSA Programs.





Farm

Tract

5083

2138

Section-Township-Range

CLU Field Boundary

Restricted Use

Limited Restrictions Exempt from Conservation

Compliance Provisions

// Rangeland

Non Ag Use Nov 02, 2009

USDAFSA maps are for FSA Program administration only. This map does not appearent a legal survey or as fleet sotual ownership, rather it depoints the information provided directly from the producer and/or the 2005 only arother imagery for Montana. The producer accepts the data 'as is' and assumes all risks associated with its use. The USDA Farm Service Agency assumes no asponsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside of FSA Programs.

CENTROL®

Soil Analysis by: Agvise Laboratories Northwood: (701) 587-6010 Benson: (320) 843-4109

SUBMITTED FOR:

MILLER COLONY

BYNUM, MT

SOIL TEST REPORT

FIELD: COLONY
SAMPLE COL PIV E
CNTY TETON

TWP SEC

0 QTR

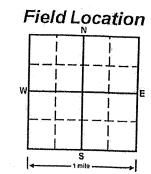
ACRES 80

PREV. CROP Wheat-High Pro.

SUBMITTED BY:

CE0678

CENTROL LLC PO BOX 284 BRADY,MT 59416 REF# 13504780 LAB# 182594 BOX# 0



Date Sampled: 12/16/2011 Date Received: 12/21/2011 Date Reported: 12/22/2011

BURGOLIO GORGO SERVICIO		nliman.			edistrative constraint						and reported.		12/2	2/2011	
NUTRIE	ent in soil	Vicy		RETATI Mea	ent Holis			DR GHOIGE			ROP GHOICE		ecoup.	DP. CHOICE	
0-6"	22 lb/ac							ioia ou		9	inola-bu		Canola-bu		
6-24" 0-24"	27 lb/ac 49 lb/ac						Yie	ld Goal		Y	eld Goal		Yle	ld Goal	
- 1900 1800							50) BU			io BU		70) BU	
Nitrate						SUGGI	STE	O GUIDELINES	suc	GEST	ED GUIDELINES	SUGG	ESTEL) GUIDELINES	
						5.5	В	and			Band		В	and	
Olsen	32 ppm	*****	*****	1	*****	LB/AC	RE	APPLICATION	Li	/ACRE	APPLICATION	LB/A	CRE	APPLICATION	
Phosphorus Potassium	***************************************			******		N	126		N	16		N	196		
7 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	188 ppm	*****				P ₂ O ₅	10	Band (Starter)*	P ₂ 0	5 10	Band (Starter)	P ₂ O ₅	10	Band (Starter)*	
0-24" Chloride	48 lb/ac		*****			K ₂ O	0		K ₂ (0		к₂о	0		
0-6*	28 lb/ac	*****	*****) 		CI		Not Available	CI		Not Available	CI		Not Available	
6-24" Sulfur	84 lb/ac	*****	*****	*****	*****	s	15	Band	S	15	Band	s	15	Band	
Вогол	Anticological Control of the Control					В		-	В		-	В			
Zinc						Zn			Zn			Zn		****************	
Iron	Control of the second s					Fa			Fe			Fe			
Manganese						Mn			Mn			Mn			
Copper	1.37 ppm	•••••	•••••		•	Cu	0		Cu	0	- Commence of the Commence of	Cu	0		
Magnesium	an a garant de la la companya de la De la companya de la					Mg			Mg	7	A Comment of the Comm	Mg	 		
Calcium	andrey artistic parties on the first of the	<u> </u>				Lime			Lime			Lime	 		
Sodium Org. Matter	3.3 %	*****				(Learning C			(LLLL) Terr	JL	11	الكتقال			
Carbonate	3.3 %					Soil pH	Bu	fer pH Cation		*****	% Base Salura	tion(Typical	Range)		
0-6"	0.38 mmho/cm		•••					Cepacily	500 BERNER	4 Ca	% Mg	% K	% Na	%н	
6-24" Sol. Salts	0.3 mmho/cm	*****	•			8.0				er en er er einer volgen ver einer					
rop 1: ** Chlorid	l limita	EMPERSON I				L	JL		<u>,IL.,</u>	regregações de como	<u> </u>		this may be a comp	_1[]	

Crop 1: ** Chloride yield data is limited for this crop.* Caution: Seed Placed Fertilizer Can Cause Injury *Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 45 K2O = 23AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 2: ** Chloride yield data is limited for this crop.* Caution: Seed Placed Fertilizer Can Cause Injury *Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 3: ** Chloride yield data is limited for this crop.* Caution: Seed Placed Fertilizer Can Cause Injury *Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 63 K2O = 32AGVISE Band guidelines will build P & K test levels to the medium range over many years.

SUBMITTED FOR:

MILLER COLONY

BYNUM, MT

Sol. Salts

SOIL TEST REPORT

FIELD **VALLEY PIV**

SAMPLE VALLEY PIV CNTY TETON

TWP

SEC 0 QTR ACRES 100

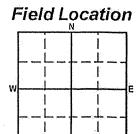
PREV. CROP Grass/Alfalfa

SUBMITTED BY:

CE0678

CENTROL LLC **PO BOX 284** BRADY,MT 59416

REF# 13504796 LAB# 182586 BOX# 0



Date Sampled: 12/16/2011 12/21/2011 12/22/2011 Date Received: Date Reported:

NUTRIEN	TINSOIL	New Years	ideletete stovy	ETAUII Med	ΘΝ (10)	W. W. W. C.		:Xellele				IP CHOIGE				P CHOICE
0-6" 6-24"	8 lb/ac 3 lb/ac		a processor				Yiel	d Goal			Yiel	d Goal			Yield	I Goal
0-24"	11 lb/ac	44						Tons			6	Tons			7	Tons
	-					SUGGI	STE	OUIDEL	INES	SUGGI	STE	GUIDELINE	s suc	3GE	STED	GUIDELINES
Nitrate							Bro	adcast			Bro	ndcast			Broa	adcast
Olsen	21 ppm		*****			LB/AC	CRE	APPLIC	ATION	LB/A	ORE	APPLICATI	ON	3/AC	RE	APPLICATION
Phosphorus	and the second					N	64			N	79		N		94	
Polassium	196 ppm	*****	*****	*****	*****	P ₂ O ₅	0			P ₂ O ₅	O		P ₂	ا[5د	0	
0-24"	8 lb/ac	•••				к ₂ 0	0			K ₂ O	0		K ₂	5][0	
Chloride			 	[]]		CI	ECCUMPACION OF	Not Av	ailable	CI.		Not Availa	ble C			Not Available
0-6" 6-24" Sulfur	120 +lb/ac 360 +lb/ac	*****	*****		*****	S	0			s	0		5		0	
Boron	1.8 ppm			*****	•••••	В	0			В	0		E		0	
Zinc	1.64 ppm			*****	4.5.	Zn	0	<u> </u>		Zn	0		Z	ıl	0	
Iron	23.1 ppm	*****	*****			Fe	0			Fe	0	Day on the second secon	F	2	0	Anglowell' Majournakey & Springlands of Springland
Manganese	4.9 ppm	*****	*****	*****	•••••	Mn	0			Mn	O		М	<u>n</u>][0	
Copper	1.13 ppm	*****	*****	*****		Cu	0			Cu	0	\$ \$2000,000 penimental penimental penimental penimental penimental penimental penimental penimental penimental	C	ال	0	
Magnesium	494 ppm			•••••	*****	Mg	0			Mg	0	***************************************	М	g	0	-
Calcium	7427 ppm	*****	*****	*****	******	Lime	<u> </u>			Lime			Lir	ne		The second secon
Sodium	47 ppm	*****	*							11:3:3			===1U== ===============================			11
Org. Matter	3.2 %	*****		<u> </u>	les de la companya de	Soil p	i 1	Julier pH	Cation Exchange			% Base Se	aturation(Ty	pical	Rang	θ)
Carbonate	6.0 %	*****	******	*****					Capacity	C. 18 (4:30 20/2)	Ca	% Mg	%K		% N	а %Н
0-6* 6-24*	1,49 mmho/cm 1.75 mmho/cm	*****	*****	•••••		7.8			42.0 med	(65	-75)	(15-20)	(1-7)		(0-5) (0-5)

Crop 1: ** Chloride yield data is limited for this crop. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 240AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 2: ** Chloride yield data is limited for this crop. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 288AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: ** Chloride yield data is limited for this crop. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 70 K2O = 336AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

42.0 meg

88.5

9.8



SUBMITTED FOR:

MILLER COLONY

BYNUM, MT

SOIL TEST REPORT

FIELD VASE

SAMPLE **VASE HAY** CNTY **TETON**

TWP SEC

0

QTR

ACRES 50

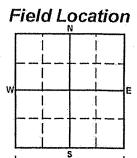
PREV. CROP Grass/Pasture

SUBMITTED BY:

CE0678

CENTROL LLC PO BOX 284 BRADY,MT 59416

REF# 13504773 LAB# 182605 BOX# 0



Date Sampled: 12/16/2011 Date Received. 12/21/2011 Date Reported: 12/22/2011

NUTTRIE	VITIN SOIL:	i in	Mergala	(HANTE	o(N	11131	(e);(e)	P(040)(03	25	deRo	P CHOICE	37	dCRO	P CHOICE
141		VI-6W	Low	Med	High	G	irass/	Pasturo		Grass	/Pasturo		Grass	Pasturo .
0-6" 6-24"	2 lb/ac 3 lb/ac						Yiek	l Goal		Yiel	J Goal		Yiel	d Goal
0-24"	5 lb/ac	*					3	Tons		4	Tons		5	Tons
Niirate	The state of the s					SUGGE	STED	GUIDELINES	SUGG	ESTEC	GUIDELINES	SUGG	ESTEC	GUIDELINES
14litate							Bros	dcast	18 - J. 1 18 - J. 1	Bro	idcast		Bro	ideast
Olsan	35 ppm	*****	*****	*****		LB/AC	RE	APPLICATION	LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION
Phosphorus						N	85		N	115		N	145	
Potassium	368 ppm	*****		*****	*****	P ₂ O ₅	0		P ₂ O ₅	0		P ₂ O ₅	0	
0-24" Chloride	132 lb/ac		*****	••••	*****	к ₂ 0	0		κ ₂ 0	0		κ ₂ 0	0	
0-6*	120 +lb/ac	*****	*****	*****		CI		Not Available	CI		Not Available	CI		Not Available
6-24* Sulfur	360 +lb/ac	*****	*****	*****	*****	S	0		S	0		S	0	
Baron						В			В	L		В		
Zinc						Zn			Zn	L		Zn		
Iron						Fe			Fe			Fe		
Manganese						Mn			Mn			Mn		
Copper	2.21 ppm	*****		•••••	**	Cu	0		Cu	0		Cu	0	
Magneslum						Mg			Mg			Mg		pilipingili ng dia sacara peripangapapan na na na na na hife ma
Calcium				700		Lime			Lime			Lime		
Sodium Org. Matter	5.3 %	*****						11:55			Ar B. S.	J (
Carbonate	J.J.70		IL ::			Soll pH	В	Cation Exchang	0		% Base Satura			
0-6"	1,18 mmho/cm	*****	4	*****	••			Capacit	y %	Ca	% Mg	%К	% Na	%H
6-24* Sol. Salts	0,48 mmho/cm	*****	*****			90					manife ann ammang, and party depolar depolar depolar	A STATE OF THE STA	A con transportation and	

Crop 1: ** Chloride yield data is limited for this crop.Many crops may respond to a starter application of P & K even on high soil tests.Crop Removal: P2O5 = 36 K2O = 135AGVISE Broadcast guidelines will build P & K lest levels to the high range over several years.

Crop 2: ** Chloride yield data is limited for this crop.Many crops may respond to a starter application of P & K even on high soil tests.Crop Removal: P2O5 = 48 K2O =

Crop 2: ** Chloride yield data is limited for this crop Many crops may respond to a starter application of P & R even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: ** Chloride yield data is limited for this crop Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 60 K2O = 225AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

SUBMITTED FOR: **MILLER COLONY BLACKLEAF FARM** 5130 HWY 89 BYNUM, MT 59422

SOIL TEST REPORT

FIELD **CUMMINS**

SAMPLE 25

CNTY TWP

TETON 25N-5W

QTR

SECTION 11 **ACRES** 245.0

PREV. CROP **Fallow**

CENTROL LLC 211 CENTRAL AVE E **PO BOX 284** BRADY,MT 59416

CE0678

14177548 LAB# 36065 BOX# 0

Field Location

Date Sampled:

8/28/2011

Date Received:

SUBMITTED BY:

8/31/2011

Date Reported:

REF#

9/1/2011 align=center

NUTRIENT	IN THE SOIL	INT	INTERPRETATION							
	III THE SOIL	VLow	Low	Med	High					
0-6: 6-18: 0-18: Nitrate	20 lb/ac	•	* *							
Olsen Phosphorus	20 ppm	****		****						
Potassium	199 ppm	****	****	in a d						
0-6" 6-18" Chloride	4 lb/ac 8 lb/ac	**								
0-6" 6-18" Sulfur	6 lb/ac 16 lb/ac	****	**							
Boron										
Zinc Iron										
Manganese										
Copper Magnesium	1.03 ppm	****	••••							
Calcium Sodium										
Org.Matter	2.5 %	****	4							
Carbonate(CCE) 0-6" 6-18" Sol. Salts	0.32 mmho/cm 0.24 mmho/cm	 	•							

18	ST CRO	OP CHOICE	21	2ND CROP CHOICE			3RD CROP CHOICE				
١	Wheat-	High Pro.		Wheat-	High Pro.	ı	Wheat	High Pro.			
	YIELI) GOAL		YIELI	GOAL	YIELD GOAL					
40	size=8	Bu size=8	50	50 size=8 Bu size=8			60 size=8 Bu siz				
SUGO	ESTE	GUIDELINES	SUGO	SESTE	GUIDELINES	SUGO	SESTE	GUIDELINES			
Band				В	and		В	and			
LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION			
N	70		Ν	100		N	130				
P ₂ O ₅	15	Band(Starter)*	P ₂ O ₅	15	Band(Starter)*	P ₂ O ₅	15	Band(Starter)*			
K ₂ 0	10	Band(Starter)*	K ₂ O	10	Band(Starter)*	K₂O	10	Band(Starter)*			
CI	28	Broadcast	CI	28	Broadcast	CI	28	Broadcast			
0	12	Band	S	12	Band	S	12	Band			
В			В			В					
Zn			Żn			Zn					
Fe			Fe			Fe					
Mn			Mn			Mn					
Cu	0		Cu	Cu 0		Cu	0				
Mg			Mg			Mg					
Lime			Lime			Lime					

Soil pH	BufferoH	Cation		% Base Sa	turation (Typ	oical Range)	
		Capacity	% Ca	% Mg	%K	% Na	%Н
8.3	,						

Crop 1: 61 lbs of 0-0-60 = 28 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Crop Removal: P2O5 = 25 K2O = 15 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 61 lbs of 0-0-60 = 28 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Crop Removal: P2O5 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: 61 lbs of 0-0-60 = 28 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

> SUBMITTED FOR: **MILLER COLONY BLACKLEAF FARM** 5130 HWY 89 BYNUM, MT 59422

SOIL TEST REPORT

FIELD **CUMMINS** CNTY **TETON**

SAMPLE 11,13,14,16

TWP QTR

PREV. CROP

SECTION 8 **ACRES** 496.0

SUBMITTED BY:

25N-5W

Fallow

CE0678

CENTROL LLC 211 CENTRAL AVE E **PO BOX 284 BRADY, MT** 59416

REF# 14177547 LAB# 36058

BOX#

Field Location

Date Sampled:

8/28/2011

Date Received

8/31/2011

Date Reported:

9/1/2011 align=center

NUTRIENT I	N THE SOIL	INT	INTERPRETATION						
NOTRIENT	THE SOIL	VLow	Low	Med	High				
0-6° 6-18" 0-18" Nitrate	36 lb/ac 20 lb/ac 56 lb/ac	•							
Olsen Phosphorus	21 ppm	****							
Potassium	226 ppm	****			literate Strate				
0-6" 6-18" Chloride	5 lb/ac 10 lb/ac	#							
0-6" 6-18" Sulfur	6 lb/ac 8 lb/ac								
Boron	·								
Zinc Iron									
Manganese	1 11			714					
Copper Magnesium	1.14 ppm								
Calcium									
Sodium									
Org Matter	2.7 %	****	***						
Carbonate(CCE) 0-6" 6-18" Sol. Salts	0.3 mmho/cm 0.22 mmho/cm	****	••						

1S	T CRO	P CHOICE	2N	D CRO	P CHOICE	3RD CROP CHOICE				
V	Vheat-l	ligh Pro.	V	Vheat-l	High Pro.	Wheat-High Pro.				
	YIELD	GOAL		YIELD	GOAL	YIELD GOAL				
40	size=8	Bu size=8	50	size=8	Bu size=8	60 size=8 Bu size=8				
SUGG	ESTE	GUIDELINES	SUGG	ESTEC	GUIDELINES	SUGG	ESTE	GUIDELINES.		
	Ва	and		В	and		В	and		
LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION		
2	64		N	94		Z	124			
P ₂ O ₅	15	Band(Starter)*	P ₂ O ₅	15	Band(Starter)*	P ₂ O ₅	15	Band(Starter)*		
K ₂ O	10	Band(Starter)*	K ₂ O	10	Band(Starter)*	K ₂ O	10	Band(Starter)*		
CI	25	Broadcast	CI	25	Broadcast	CI	25	Broadcast		
S	12	Band	S	12	Band	S	12	Band		
В			В			В				
Zn			Zn			Zn				
Fe			Fe			Fe				
Mn			Mn			Mn				
Cu	0		Cu 0			Cu	0			
Mg			Mg			Mg				
Lime			Lime			Lime				

		Cation		% Base Sa	ituration (Typ	oical Range)	
Soil pH	Burrer pH	Exchange Capacity	% Ca	% Mg	%K	% Na	%.H
8.3							

Crop 1: 55 lbs of 0-0-60 = 25 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Crop Removal: P205 = 25 K2O = 15 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 55 lbs of 0-0-60 = 25 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Crop Removal: P2O5 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: 55 lbs of 0-0-60 = 25 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Crop Removal: P205 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

SUBMITTED FOR: **MILLER COLONY BLACKLEAF FARM** 5130 HWY 89 BYNUM, MT 59422

SOIL TEST REPORT

FIELD **CUMMINS** CNTY **TETON** TWP

SAMPLE 26 25N-5W

QTR PREV. CROP Lentils SECTION 11 **ACRES** 142.0

SUBMITTED BY:

CE0678

CENTROL LLC 211 CENTRAL AVE E **PO BOX 284 BRADY,MT** 59416

REF#

LAB# 36068 BOX#

12501587

Field Location

Date Sampled:

8/28/2011

Date Received:

8/31/2011

Date Reported:

9/1/2011 align=center

NUTRIENT	IN THE SOIL	INT	ERPR	ETATI	ON
		VLow	Low	Med	High
0-6 6-18 0-18 Nitrate	10 lb/ac	4			
Olsen Phosphorus	17 ppm		•		No.
Potassium	225 ppm	****		****	
0-6" 6-18" Chloride	4 lb/ac 10 lb/ac	**			
0-6" 6-18" Sulfur	10 lb/ac 20 lb/ac	****	••		
Boron :					
Zinc Iron					
Manganese Copper	0.00			Veve :	
Magnesium	0.96 ppm				
Calcium					
Sodium					
Org.Matter Carbonate(CCE)	2.7 %	****	***		
Mark Victoria (1970)	0.24 mmho/cm 0.19 mmho/cm	***			

15	1ST CROP CHOICE			ND CR	OP CHOICE	3RD CROP CHOICE				
1	Wheat-	High Pro.		Wheat-	High Pro.		Wheat-	High Pro.		
	YIELI) GOAL		YIELI) GOAL		D GOAL			
40	size=8	Bu size=8	50	size=l	Bu size=8	60	Bu size=8			
SUGG	ESTE	GUIDELINES	SUGO	ESTE	GUIDELINES	SUGO	ESTE	GUIDELINES		
	В	and		В	and	Band				
LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION		
N	95		N	125		N	155			
P ₂ O ₅	15	Band(Starter)*	P ₂ O ₅	15	Band(Starter)*	P ₂ O ₅	17	Band *		
K ₂ O	10	Band(Starter)*	K ₂ O	10	Band(Starter)*	K ₂ O	10	Band(Starter)*		
CI	26	Broadcast	CI	26	Broadcast	CI	26	Broadcast		
S	9	Band (Trial)	S	9	Band (Trial)	S	9	Band (Trial)		
В			В			В				
Zn			Zn			Zn				
Fe			Fe			Fe				
Mn			Mn			Mn				
Cu	0		Cu	0		Cu	0			
Mg			Mg			Mg				
Lime			Lime			Lime				

SoiloH	Buffer nH	Cation Exchange		% Base Sa	ituration (Typ	ical Range)	
		Capacity	% Ca	% Mg	%K	% Na	%Н
8.4							

Crop 1: 57 lbs of 0-0-60 = 26 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 25 K2O = 15 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 2: 57 lbs of 0-0-60 = 26 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 3: 57 lbs of 0-0-60 = 26 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

35 Bu

65 # UREA TOPPRESS

> SUBMITTED FOR: **BLACKLEAF FARM BLACKLEAF FARM** 5130 HWY 89 BYNUM, MT

SOIL TEST REPORT

FIELD **WEST SHEAR**

SAMPLE WEST SHEAR

CNTY TWP QTR

TETON 25N-7W

SECTION 3 **ACRES 166.0**

PREV. CROP Lentils

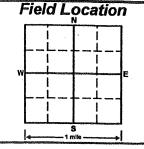
CENTROL LLC

PO BOX 284

BRADY,MT

59416

211 CENTRAL AVE E



CE0678

REF# 14177546 LAB# 36056 BOX#

Date Sampled:

59422

8/28/2011

Date Received:

SUBMITTED BY:

8/31/2011

Date Reported:

9/1/2011 align=center

	INTERPRETATION	1ST	CRO	P CHOICE		2ND CROP CHOICE				3RD CROP CHOICE		
NUTRIENT IN THE SOIL	VLow Low Med High	W	ıeat-l	ligh Pro.		N	/heat-l	High Pro.		V	Vheat-	High Pro.
0-6" 3 lb/ac			(IELD	GOAL		YIELD GOAL				YIELD GOAL		
6-18" 10 lb/ac 0-18" 13 lb/ac		40 s	ize=8	Bu size=8		50	size=8	Bu size=8		60	size=8	Bu size=8
		SUGGESTED GUIDELINES			S	SUGGI	ESTE	GUIDELINI	ES S	JGG	ESTE	GUIDELINES
Nitrate		Band					В	and			В	and
		LB/ACRE APPLICATION			LB/AC	CRE	APPLICATI	ON	B/A	CRE	APPLICATION	
Olsen 3 ppm		N	97			N	127			N	157	
Phosphorus Potassium 216 ppm		P ₂ O ₅	30	Band *		P ₂ O ₅	37	Band *	P.	05	45	Band *
0-6" 4 lb/ac	••	K ₂ O	10	Band(Starter)*	K ₂ O	10	Band(Starte	er)* K	20	10	Band(Starter)*
6-18" 8 lb/ac Chloride		CI	28	Broadcast		CI	28	Broadcas	t 📗	CI	28	Broadcast
0-6" 4 lb/ac 6-18" 20 lb/ac		S	12	Band		S	12	Band		S	12	Band
Sulfur		В				В				В		
Boron Zing		Zn				Zn				Žn		
Iron		Fe				Fe				e		
Manganese.	Pierre Pierre	Mn				Mn			1	/In		
Copper 0.81 ppm Magnesium		Cu	0			Cu	0)u	0	
Calcium		Mg				Mg				Λg		
Sodium		Lime				Lime			L	me		
Org:Matter 2.7 % Carbonate(CCE)				Ca	tion			% Base Sat	uration (Typi	cal Ran	ae)
0-6" 0.36 mmho/cm		Soil pH	B	iffer pH Excl			Ca	% Mg	%K		% Na	- 1
6-18" 0.3 mmho/cm Sol. Salts		8.4										

Crop 1: 61 lbs of 0-0-60 = 28 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 25 K2O = 15 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 2: 61 lbs of 0-0-60 = 28 lbs of Chloride *Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 3: 61 lbs of 0-0-60 = 28 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

> SUBMITTED FOR: **BLACKLEAF FARM BLACKLEAF FARM** 5130 HWY 89 BYNUM, MT 59422

SOIL TEST REPORT

FIELD VASE CNTY **TETON** TWP 26N-6W

Lentils

SAMPLE VASE SECTION 28

QTR PREV. CROP **ACRES**

SUBMITTED BY:

CENTROL LLC 211 CENTRAL AVE E **PO BOX 284 BRADY,MT** 59416

CE0678

REF# 14177545 LAB# 36053 BOX#

Field Location

Date Sampled:

8/28/2011

Date Received

8/31/2011

Date Reported:

9/1/2011 align=center

N. 14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		INT	INTERPRETATION						
NUTRIENT II	N THE SOIL	VLow	Low	Med	High				
0-6* 6-18* 0-18* Nitrate	4 lb/ac 16 lb/ac 20 lb/ac	•••							
Olsen Phosphorus	12 ppm	****	****	****					
Potassium	192 ppm	••••	•••		G.				
0-6" 6-18" Chloride	6 lb/ac 12 lb/ac	••							
0-6" 6-18" Sulfur	12 lb/ac 28 lb/ac	****	**						
Boron									
Zinc Iron									
Manganese									
Copper	0.89 ppm	****	****						
Magnesium									
Calcium									
Sodium					1000				
Org:Matter Carbonate(CCE)	2.4 %								
0-6"	0.29 mmho/cm 0.29 mmho/cm	****	•						

18	T CRO	P CHOICE	2N	D CRO	P CHOICE	3RD CROP CHOICE				
v	Vheat-H	ligh Pro.	V	Vheat-l	High Pro.	N.	Vheat-l	High Pro.		
	YIELD	GOAL		YIELD) GOAL	YIELD GOAL				
40	size=8	=8 Bu size=8 50 size=8 Bu size=8				60 size=8 Bu size=8				
SUGGESTED GUIDELINES			SUGG	ESTEL	GUIDELINES	SUGG	ESTEL	GUIDELINES		
Band				Ba	and		В	and		
LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION		
N	90		N	120		N	150			
P ₂ O ₅	18	Band *	P ₂ O ₅	22	Band *	P ₂ O ₅	27	Band *		
K ₂ O	10	Band(Starter)*	K ₂ O	10	Band(Starter)*	K₂O	10	Band(Starter)*		
Cl	22	Broadcast	CI	22	Broadcast	CI	22	Broadcast		
S	9	Band (Trial)	S	9	Band (Trial)	S	9	Band (Trial)		
В			В			В				
Zn			Zn			Zn				
Fe			Fe		·	Fe				
Mn			Mn			Mn				
Cu	0		Cu 0			Cu	0			
Mg			Mg			Mg				
Lime			Lime			Lime				

		Cation	% Base Saturation (Typical Range)									
Soil pH	Buller pH	Exchange Capacity	% Ca	% Mg	%K	% Na	%Н					
8.4						,						

Crop 1: 48 lbs of 0-0-60 = 22 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 25 K2O = 15 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Crop 2: 48 lbs of 0-0-60 = 22 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: 48 lbs of 0-0-60 = 22 lbs of Chloride * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 10 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Crop Removal: P2O5 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

60-25-5-10 DRILL 55# UREA TOPORESS

35 BU

CENTROL

Soil Analysis by: Agvise Laboratories Northwood: (701) 587-6010 Benson: (320) 843-4109

SUBMITTED FOR:

MILLER COLONY

0.6"

6-24"

0.42 mmhp/cm

0.32 mmho/cm

BYNUM, MT

SOIL TEST REPORT

FIELD CORN SAMPLE CORN

CNTY TWP

SEC

0 QTR

TETON

ACRES 50

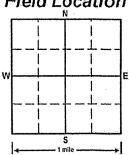
PREV. CROP Corn-Silage

SUBMITTED BY:

CE0678

CENTROL LLC PO BOX 284 BRADY,MT 59416 Field Location

REF# 13504798 LAB# 182596 BOX# 0



Date Sampled: 12/16/2011 Date Received: 12/21/2011 Date Reported: 12/22/2011

NUTRIENT IN SOIL		INTERPRETATION				1st CROP CHOICE		2nd CROP CHOICE			3rd CROP CHOICE			
		Vicy	Low.	Mexa	Bigh		Com	-Silage		Corn	-Silage		Corn	-Silage
0-6" 6-24"	26 lb/ac 72 lb/ac					Yield Goal		Yield Goal			Yield Goal			
0-24"	98 lb/ac			•••		15 Tons		25 Tons			30 Tons			
Niirate						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			
					Band LB/ACRE APPLICATION		Band		Band					
Olsen	Olsen 36 ppm						LBIACRE APPLICATION		LB/ACRE APPLICATION					
Phosphorus	Jo ppm					N	58		N	162		Ν	214	
Potassium	169 ppm					P ₂ O ₅	15	Band (2x2) *	P ₂ O ₅	15	Band (2x2) *	P2O5	15	Band (2x2) *
0-24"	8 lb/ac	***				к ₂ 0	29	Band *	K ₂ O	48	Band *	K ₂ O	58	Band *
Chloride			1	1		CI		Not Available	Ci		Not Available	CI		Not Available
0-6" 6-24" Sulfur	32 lb/ac 78 lb/ac		*****		 	S	0		s	0		S	0	
Boron						В			В			В		
Zinc						Zn			Zn		helian 1, 1 met 10, 10 a morror menter management	Zn		
Iron						Fe			Fe			Fe		
Manganese						Mn			Mn			Mn		
Copper :	3.19 ppm					Cu	0		Cu	0.	Professional Annotation in the public in the contraction of the contra	Cu	O	
Magnesium						Mg			Mg			Mg		
Calcium						Lime			Lime	İ		Lime		
Sodium	ermanyamman ayan kahilikan ki miliyi kanadada kahiliyi kaliyak ki kikili kikili kana Ayaliya kanaliki kikan mili ki ki kanada kanamata ki kana ya ki ji							rando kasabata			JL	116		
Org. Matter	3.2 %		*****			Soil p	uffer pH Exchan	% Base Saturation(Typical Range)					6)	
Carbonate								Capaci		Ca	% Mg	% K	% N	a %H

Crop 1: ** Chloride yield data is limited for this crop.* Caution: Seed Placed Fertilizer Can Cause Injury *Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 125AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: ** Chloride yield data is limited for this crop.* Caution: Seed Placed Fertilizer Can Cause Injury *Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 90 K2O = 208AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: ** Chloride yield data is limited for this crop.* Caution: Seed Placed Fertilizer Can Cause Injury *Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 108 K2O = 249AGVISE Band guidelines will build P & K test levels to the medium range over many years.